
MAGOFFIN COUNTY

(Magoffin County Water Service Area Map)

- Estimated 1999 population of 13,900--65% on public water
- Estimated 2020 population of 15,200--80% on public water
- 230 miles of water line, with plans for additional 170 miles
- Estimated funding needs for public water 2000-2005--\$8,700,000
- Estimated funding needs for public water 2006-2020--\$11,700,000

Magoffin County had an estimated population of 13,853 (5,074 households) in 1999. Some 3,220 households (approximately 65%) were served by public water. The remainder relied primarily on wells. It is projected that the population of Magoffin County will be 15,200 (6,222 households) in the year 2020. Proposed water line extensions in the period 2000-2020 will serve another 940 households.

Estimated Costs - Proposed Projects, 2000-2020

COUNTY/System		New Customers	Cost	Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
MAGOFFIN								-
Salysersville				1,000	5,000			6,000
Magoffin Co. W/D	44	378	2,200				500	2,700
Total	44	378	2,200	1,000	5,000		500	8,700

Estimated Costs - Proposed Projects, 2006-2020

COUNTY/System		New Customers	Cost	Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
MAGOFFIN								-
Salysersville				1,000		3,000		4,000
Magoffin Co. W/D	123	563	6,200				1,500	7,700
Total	123	563	6,200	1,000		3,000	1,500	11,700

PUBLIC WATER SYSTEMS

Two public water systems serve Magoffin County, a municipal system and a water district. The municipal system is managed by a utility commission and serves the City of Salysersville, the county seat. The system's service area extends outside the city limits in several directions for relatively short distances, with the exception of a service main along KY Route 40 which terminates at the Magoffin / Johnson County line. This system owns and operates a water

WATER SERVICE AREAS

MAGOFFIN COUNTY

Kentucky

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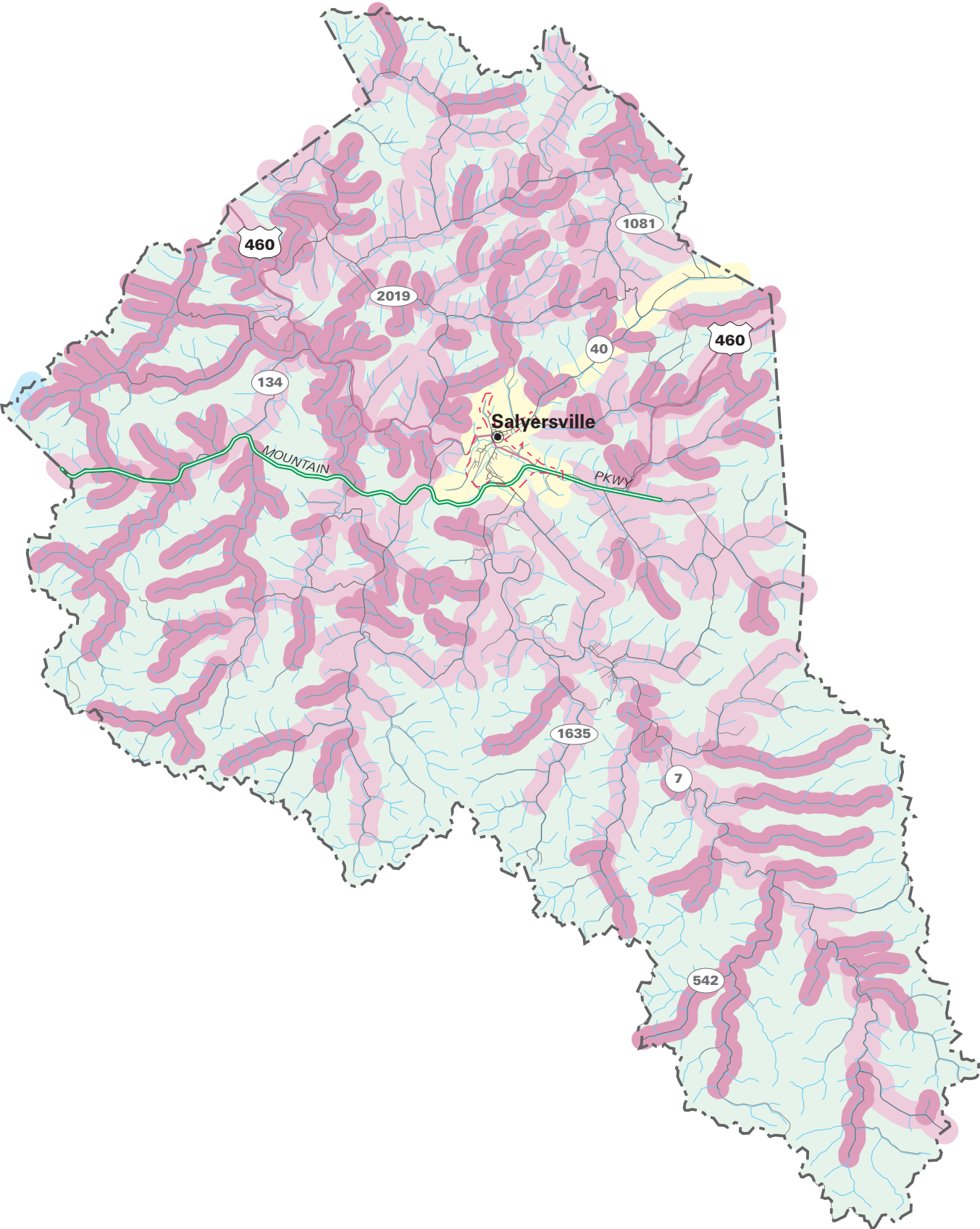
Bob Arnold, Chairman
Lawrence Wetherby, Executive Director

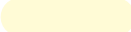

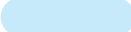
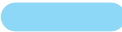


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WATER SERVICE STATUS BY OWNER		
EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		SALYERSVILLE WATER WORKS
		MORGAN COUNTY WATER DISTRICT
		MAGOFFIN COUNTY WATER DISTRICT

treatment plant and sells water to the water district. The current water source is the Licking River. Major issues relating to the flow characteristics of the Licking River, requires development of an alternative source(s) in the short-term (0-5 years) to meet projected demands for normal growth along existing service mains of both systems, as well as to accommodate any significant new water users of both systems. The water district has developed an impressive customer base in a relatively short period of time using conventional funding methods and assistance programs. Its success is credited largely to the dedication and sheer dogged determination and persistence of the board of commissioners and the system manager. At present the system has encountered some organizational issues which must be resolved so as not to jeopardize its development momentum.

SALYERSVILLE MUNICIPAL WATER

PWSID: 0770566
System Type:..... COMMUNITY
Owner Type: MUNICIPAL
Surface Source:..... LICKING RIVER
Purchase Source: PAINTSVILLE CITY UTILITIES
Well Source: Yes
Sells Water to: MAGOFFIN COUNTY WATER DISTRICT
Treatment Plant Capacity (MGD):..... 2.00
Percent Daily Average Production:..... 62.00
Total Tank Storage Capacity (gallons): 500,000.00
Total Service Connections: 1,073.00
Number of Employees:..... 12.00
Treatment Operator Class: 2D
Distribution Operator Class:..... 3A
Customer Rate for 1,000 Gallons:..... Not available
O/M costs 1997: Not available
O/M costs per Service Connection: Not available
Net Revenue 1997: Not available
Total Water Produced 1997 (gallons): Not available
Water Sold 1997 (gallons): Not available
Unaccounted-for Water 1997 (%): Not available

The City of Salyersville, through its Utilities Commission, owns and operates a 2.0mgd water treatment plant. Raw water for this plant is withdrawn from the main stem of the Licking River, upstream from the Salyersville cut-through, near the Magoffin County High School. Storage capacity of the system is 500,000 gallons. The City distributes water to some 1,072 service connections--960 residential and 112 commercial. The system has 12

employees, including certified treatment plant operators, certified distribution system operators, and support staff.

Water treatment plant facilities are well maintained and are in excellent repair. Distribution system facilities are equally well maintained. Cleaning and restoration of storage facilities are underway presently. Future development potential for the system in the City is limited. Continued growth along State Road Fork (KY Route 40) is expected to continue at a rate of 10% each year. The Magoffin County Water District serves areas outside the City's current service area.

Timely resolution of the water source issue is critically important to the system. All local leadership is aware and focused on the problem. Members and the Superintendent of the Salyersville Utilities Commission, managers of the Magoffin County Water District, together with the Mayor, the County Judge-Executive, and citizens-at-large have actively participated in a community based water supply planning process, tasked to identify and prioritize alternative water sources for the County. To date, construction of one or more reservoirs, tapping a flooded former stone quarry, development of a well field into the Lee Formation, drawing water from Paintsville Lake, and modifying the Salyersville cut-through to increase storage have been advanced as those options considered to be most viable. Once the final steps of the preliminary analysis of the alternative water source are complete, the most cost-effective option must be selected.

Salyersville Utilities Commission and Magoffin County Water District have initiated plans for the development of an alternative raw water source. Projected demands for normal growth will require development of an alternative source of water within the next five years. Various alternatives have already been discussed and advanced as those options considered being most viable. The various alternative discussed are construction of one or more reservoirs, tapping a flooded stone quarry, development of a well field into the Lee Formation, drawing water from Paintsville Lake, and modifying the Salyersville cut-through to increase storage.

Preliminary costs on either the reservoir option, the use of the quarry, or the use of Paintsville Lake are estimated to be \$4,000,000. The well-field option appears the most cost

effective but remains the least acceptable from the perspective of most reliable in the long term.

MAGOFFIN COUNTY WATER DISTRICT

PWSID: 0770525
System Type: COMMUNITY
Owner Type: WATER DISTRICT
Surface Source:
Purchase Source:SALYERSVILLE WATER WORKS
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD): 0.00
Percent Daily Average Production: 0.00
Total Tank Storage Capacity (gallons): 100,000.00
Total Service Connections: 2,342.00
Number of Employees: 8.00
Treatment Operator Class:2D
Distribution Operator Class:
Customer Rate for 1,000 Gallons: 5.74
O/M costs 1997: 499,880.00
O/M costs per Service Connection: 215.65
Net Revenue 1997: 23,571.00
Total Water Produced 1997 (gallons): 0.00
Water Sold 1997 (gallons): 116,391.00
Unaccounted-for Water 1997 (%): 8.26

The District's facilities consist in an extensive water distribution system constructed principally of PVC water lines, generally of 6" and 8" diameters, radiating from metered delivery points around Salyersville. The system has ten pumping stations and an equal number of water storage tanks, and a storage capacity of 495,000 gallons. There are 2, 296 service connections-- 2,260 residential and 36 commercial services. The system serves some 46 customers in Floyd County, along KY Route 114 and State Road Fork at the Magoffin / Floyd County line.

The future development potential for the District is excellent, in that significant growth can occur along existing service mains at both the low and high pressure sections of the system. Consequent upon the fact that existing service lines extend adjacent to large, developable tracts throughout Magoffin County, housing and industrial development is better able to occur than in those areas not yet served by water infrastructure. However, as indicated above, regarding the City of Salyersville, the District has a major stake in the issue of an alternative water source for the County. The fact that the two systems have worked so

closely together in providing extensive service throughout the County to date portends well for a mutually beneficial resolution to the source problem.

Projected demands for normal growth will require development of an alternative source of water within the next five years. Various alternatives have already been discussed, including construction of one or more reservoirs, tapping a flooded stone quarry, development of a well field into the Lee Formation, drawing water from Paintsville Lake and modifying the Salyersville cut-through to increase storage.

Preliminary costs on either the reservoir option, the use of the quarry, or the use of Paintsville Lake are estimated to be \$4,000,000. The well-field option appears the most cost effective but remains the least acceptable from the perspective of most reliable in the long term.

PRIVATE DOMESTIC SYSTEMS

About 4,800 people in Magoffin county rely on private domestic water supplies: 4,650 on wells and 150 on hauled water, cisterns and other sources.

Most wells drilled in valley bottoms are adequate for domestic use. Fewer than half of the wells drilled on hillsides are adequate for domestic supply and even less of the wells on hilltops and ridges produce enough water for a domestic supply. Wells in the southern third of the county generally produce slightly more water with the potential to produce yields great enough to supply small municipal or industrial supplies in wells below 200 feet.

Most of the water obtained from drilled wells is extremely hard and contains noticeable amounts of iron. Salty water may be found from 50 to several hundred feet below the level of the principal valley bottoms. Ground-water quality is slightly better in the southern third of the county with moderately hard water and salty water found occasionally in the 100-feet and deeper range.

A few springs supply sufficient quantities of water for domestic use. Almost all springs yield less than 5 gpm.
